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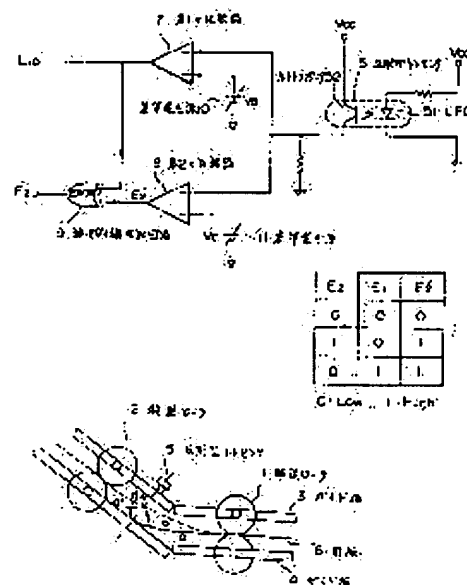
## (54) PAPER FORM DETECTING DEVICE

### (57)Abstract:

**PURPOSE:** To always hold a distance between paper forms and a print speed at respective constant values by constituting the title device with a light receiving element, first and second comparators and an exclusive OR circuit for receiving outputs of both the comparators abovementioned as its input and detecting a delay of detecting the front end of the paper form.

**CONSTITUTION:** An exclusive OR circuit 9 obtains an output E2 (0:Low, 1:High), shown in a table, from outputs E1, E'2 of the first and second comparators 7, 8. That is, a signal of detection delay of the output E1 is output to the output E2. For instance, when a paper form 6 is placed on a conveying route between its maximum position  $d_{max}(d')$  and standard position  $d_{ave}(d)$  and in a case when the output E1 of the comparator 7 is L(0: paper form present) and the output E'2 of the

comparator 8 is H(1: paper form front end, absent), the output E2 obtains H(1:) showing a detection delay existing. In the other case of the table, no detection delay exists. The paper feed timing is variably controlled in accordance with a time delay of detection of the paper form front end, so as to hold a distance between the paper forms at a constant value and hold a print speed at a constant value.



## LEGAL STATUS

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